

## Patent Abstracts of Japan

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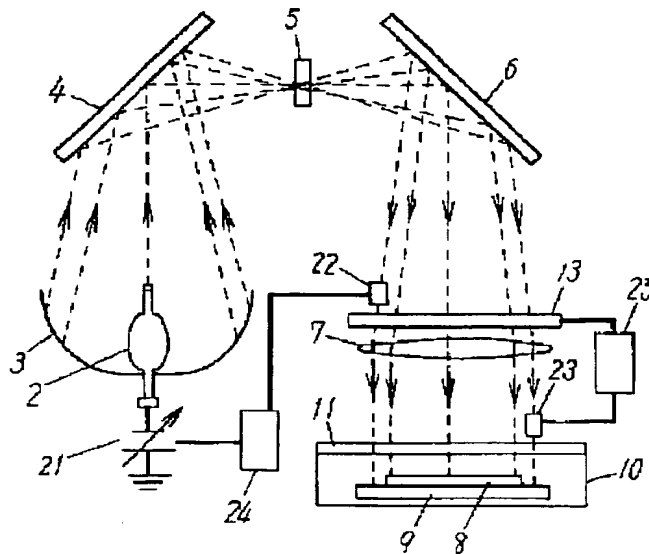
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TITLE : ULTRAVIOLET RAY IRRADIATOR AND ITS IRRADIATION METHOD



**ABSTRACT :** PROBLEM TO BE SOLVED: To harden resist stably with fixed or over illuminance by controlling the illuminance of a light source with a variable voltage source, and controlling the quantity of integrated irradiation of ultraviolet rays with an opening/closing shutter.

**SOLUTION:** In condition that an opening/closing shutter 13 is closed, a variable voltage source 21 is turned on to emit an ultraviolet ray from a light source lamp 2. A first illuminance meter 22 detects the illuminance of this ultraviolet ray, and an illuminance controller 24, wherein the specified illuminance required for hardening the resist is set, compares it, and the illuminance controller 24 controls the variable voltage source 24. After it comes to the specified illuminance, the resist on the wafer 8 is irradiated with an ultraviolet ray by opening an opening/closing shutter 13. At the same time, a second illuminance meter 23 detects the quantity of irradiation of the ultraviolet ray applied to the wafer 8, and an integrated-quantity-of-irradiation controller 25 wherein the specified integration value required for hardening the resist compares it. At the point of time when the quantity of irradiation comes to the integrated quantity of irradiation, the integrated-quantity-of-irradiation controller 25 terminates the application of ultraviolet rays to the wafer 8 by closing/opening shutter 13.

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